MICHIGAN DEPARTMENT OF NATURAL RESOURCES
Wildlife Division Report No. 3442
July 2005

Printed by Authority of: P.A. 451 of 1994
Total Number of Copies Printed: 85
Cost per Copy:.....$0.56
Total Cost: $47.60

Michigan Department of Natural Resources

2004 MARTEN HARVEST SURVEY

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ABSTRACT

A survey was completed to determine the number of marten permit holders who set traps for martens and fishers, the number of martens and fishers caught, the types of traps used, and the number of days trapped. In 2004, 531 trappers obtained a permit to trap martens. About 62% of the permit holders set traps for martens (330 trappers) and 55% set traps for fisher (292). Trappers spent nearly 3,100 days trapping martens ($\bar{x}$ = 9 days/trapper), captured 323 martens (included accidentally caught animals), and registered 190 martens. About 59% of trappers captured at least one marten. Compared to 2003, the number of furtakers trapping marten increased 41%, and the days of effort increased 72%. The number of marten captured increased 42%, but the number registered increased by only 22%. Furtakers trapping fisher were not required to obtain a marten permit; thus, estimates associated with fisher only represent trappers that obtained a marten permit. Marten permit holders spent nearly 3,300 days trapping fisher ($\bar{x}$ = 11 days/trapper), captured 358 fisher (included accidentally caught animals), and registered 200 fishers. About 46% of trappers captured at least one fisher.

INTRODUCTION

The Wildlife Division has the authority and responsibility to protect and manage the wildlife resources of the State of Michigan. Harvest surveys are a management tool used by the Wildlife Division to help accomplish this statutory responsibility. The main objectives of this harvest survey were to determine the number of trappers who set traps for martens (*Martes americana*), the types of traps used, the number of days trapped, and the number of martens that were caught. The number of people trapping martens has increased during recent years (Frawley 2004); thus, new trappers were asked why they obtained a permit. Because marten trappers frequently seek to catch fishers (*Martes pennanti*), they also were asked whether they

A contribution of Federal Aid in Wildlife Restoration, Michigan Project W-147-R

IC2578-35 (rev. 07/01/2005)

attempted to trap fisher. If they trapped fisher, they were asked to report the number of days they trapped fishers and the number of fishers caught.

Efforts to restore the American marten have been successful throughout the Upper Peninsula (UP). As a result, martens were removed from the state's threatened species list in March 1999. The abundance of martens in the UP was sufficient to support a limited harvest. A marten trapping season was created in 2000, establishing the first legal harvest of marten since 1924.

The marten trapping season was 15 days in the UP (December 1-15), which was concurrent with the fisher (*M. pennanti*) trapping season. The entire UP, except Drummond Island and the Pictured Rocks National Lakeshore, was open to marten trapping. In order to trap martens, trappers were required to obtain a free marten trapping permit, in addition to a Fur Harvester License. Furtakers trapping fisher were not required to obtain a marten permit; thus, estimates associated with fisher trapping do not include all furtaker participation, effort, or harvest. Rather, these estimates only represent the participation, effort, or harvest of trappers that obtained a marten permit. Trappers were limited to one marten and three fishers, and successful trappers were required to register animals taken by December 20, 2004. Trappers were not allowed to keep incidental martens and fishers that were caught. However, trappers were required to bring these incidental catches to a registration station if they could not be released alive. Trappers could use body-gripping (conibear type) traps and foothold traps to capture marten. Live traps were also legal if set within 150 yards of a residence or farm building.

METHODS

A questionnaire was sent to everyone who obtained a marten trapping permit in 2004 (531 permit holders). Trappers receiving the questionnaire were asked to report if they trapped martens or fishers, number of days spent afield, number of martens and fishers caught (including all incidental catches and releases), and number of martens and fisher registered (i.e., animals tagged and returned to the trapper). Trappers were also asked to indicate the status of the marten and fisher population in the county where they primarily trapped (i.e., absent, stable, increasing or decreasing).

In an attempt to understand recruitment, trappers also were asked why they obtained a marten permit. The Michigan Department of Natural Resources (DNR) sells hunting licenses using a statewide automated license sales system (i.e., Retail Sales System). This system allowed the DNR to maintain a database containing license sales information (e.g., sales transactions). From this database, permit holders that had obtained a permit for the first time in 2004 were identified. The responses from this group were used to determine the motives for obtaining a permit among first-time permit holders.

Estimates were calculated using a simple random sampling design (Cochran 1977) and were presented along with their 95% confidence limit (CL). This confidence limit can be added and subtracted from the estimate to calculate the 95% confidence interval. The confidence interval is a measure of the precision associated with the estimate and implies that the true value would be within this interval 95 times out of 100. Estimates were not adjusted for possible response or nonresponse bias.

Questionnaires were mailed initially during mid-January 2005, and up to two follow-up questionnaires were mailed to nonrespondents. Questionnaires were undeliverable to 13 permit holders. Questionnaires were returned by 439 of 511 people receiving the questionnaire (86% response rate).

RESULTS AND DISCUSSION

Marten

In 2004, 531 trappers obtained a permit to trap martens. Men obtained most of these permits (488). Women obtained 36 permits, and the sex of 7 permit holders was unknown. About 62 ± 2% of the permit holders set traps for martens (330 trappers). Trappers spent 3,078 days trapping ($\bar{x}$ = 9.3 ± 0.3 days/trapper), captured 323 martens, and registered 190 martens (Table 1). The estimated number of martens captured included animals that were accidentally captured and many of these may have been released. About 59 ± 2% of trappers successfully captured at least one marten. The greatest numbers of martens were captured in Chippewa (63) and Luce (50) counties.

Compared to 2003, the number of people trapping marten increased 41% (330 versus 235 trappers), and the number of days that people trapped increased 72% (3,078 versus 1,793 days) (Figure 1). The number of marten captured increased 42% (323 versus 227 martens, included animals that were accidentally captured).

Most trappers used conibear-type traps to capture martens (84 ± 2%), although foothold traps also were used frequently (37 ± 2%). Among trappers using conibear traps, the mean number of conibear traps set was 5.9 ± 0.3 traps. Among trappers using foothold traps, the mean number of foothold traps set was 4.2 ± 0.3 traps.

Thirty-seven percent of marten trappers (±2%) believed marten numbers were increasing in the county where they trapped most often, while 42 ± 2% thought marten numbers were stable, 5 ± 1% thought that marten were declining, 6 ± 1% indicated that martens were not present, and 10 ± 1% did not comment on the status of marten.

In 2004, 281 of 531 marten permit holders (53%) obtained a permit for the first time (Figure 2). These marten trappers were asked what reasons were important for obtaining a permit (Figure 3). New trappers most frequently cited an opportunity to spend time outdoors as the most important reason for obtaining a permit in 2004 (84 $\pm$ 1%). The challenge of capturing a marten (63 $\pm$ 2%), an opportunity to learn about and observe marten (60 $\pm$ 2%), and an opportunity to spend time with friends and family (57 $\pm$ 2%) were the next most important reasons to obtain a permit. Earning income was the least frequently cited reason for obtaining a permit (13 $\pm$ 1%).

Fisher

Furtakers trapping fisher were not required to obtain a marten permit; thus, estimates associated with fisher trapping do not include all furtaker participation, effort, or harvest.

Rather, these estimates only represent the participation, effort, or harvest of trappers that obtained a marten permit.

About 55 ± 2% of the marten permit holders set traps for fishers (292 trappers). Nearly 75 ± 2% of the trappers that had attempted to catch marten also attempted to trap fishers (249 ± 10 trappers). Trappers spent 3,302 days trapping (6.2 ± 0.3 days/trapper), captured 358 fishers, and registered 200 fishers (Table 2). About 46 ± 3% of trappers successfully captured at least one fisher. The greatest number of fishers was captured in Ontonagon (119) and Marquette (48) counties (Table 2). The estimated number of fishers captured included animals that were accidentally captured, and some of these animals may have been released.

Most trappers used conibear-type traps to capture fishers (81 ± 2%), although foothold traps also were used frequently (44 ± 3%). Among trappers using conibear traps, the mean number of conibear traps set was 7.1 ± 0.4 traps. Among trappers using foothold traps, the mean number of foothold traps set was 5.7 ± 0.5 traps.

Twenty-eight percent of fisher trappers (± 2%) believed that fisher numbers were increasing in the county where they trapped most often, while 46 ± 3% thought fisher numbers were stable, 15 ± 2% thought they were declining, 4 ± 1% indicated that fishers were absent, and 8 ± 1% did not comment on the status of fisher.

ACKNOWLEDGEMENTS

I thank all of the marten trappers that provided information. Theresa Riebow and Becky Walker completed data entry. Michael Bailey, Dave Bostick, Dwayne Etter, Valerie Frawley, Penney Melchoir, and William Moritz reviewed a previous version of this report.

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Table 1. Estimated number of trappers, trapping effort, martens captured (including all incidental catches and releases), and martens registered during the 2004 Michigan marten trapping season.

	Trappers		Trapping effort (days)		Martens captured[a]		Martens registered[b]	
County	Total	95% CL[c]	Total	95% CL[c]	Total	95% CL[c]	Total	95% CL[c]
Alger	31	5	217	39	29	6	23	4
Baraga	22	4	175	38	12	4	10	3
Chippewa	51	6	376	53	63	13	34	5
Delta	8	3	87	28	1	1	1	1
Dickinson	6	2	42	17	0	0	0	0
Gogebic	38	5	336	54	38	13	18	4
Houghton	19	4	181	41	16	5	10	3
Iron	38	5	387	58	12	4	8	3
Keweenaw	8	3	100	32	6	3	5	2
Luce	36	5	206	34	50	15	28	5
Mackinac	12	3	99	28	13	8	0	0
Marquette	41	6	347	55	35	6	25	4
Menominee	7	2	65	23	1	1	1	1
Ontonagon	25	4	254	49	39	16	18	4
Schoolcraft	23	4	184	39	7	2	7	2
Unknown	4	2	21	11	1	1	1	1
Statewide[d]	330	10	3,078	140	323	33	190	10

[a]All martens that were removed from traps, including all incidental catches and releases.
[b]Includes only martens that were registered (i.e., a seal was attached and the animal was returned to the trapper).
[c]95% confidence limits.
[d]Number of trappers does not add up to statewide total because trappers could trap in more than one county. Column totals for trapping effort and capture may not equal statewide totals because of rounding errors.

Table 2. Estimated number of trappers, trapping effort, fishers captured (including all incidental catches and releases), and fishers registered by trappers that obtained a marten permit for the 2004 Michigan marten trapping season.[a]

	Trappers		Trapping effort (days)		Fishers captured[b]		Fishers registered[c]	
County	Total	95% CL[d]	Total	95% CL[d]	Total	95% CL[d]	Total	95% CL[d]
Alger	30	5	210	39	16	4	13	3
Baraga	18	4	174	39	16	5	16	5
Chippewa	29	5	261	46	27	10	11	3
Delta	7	2	85	29	0	0	0	0
Dickinson	11	3	102	29	6	2	5	2
Gogebic	36	5	371	58	31	8	28	7
Houghton	22	4	235	48	15	5	13	4
Iron	40	5	484	68	34	8	27	6
Keweenaw	5	2	59	26	11	8	2	1
Luce	28	5	184	35	12	3	11	3
Mackinac	11	3	98	28	10	4	1	1
Marquette	44	6	431	63	48	10	38	8
Menominee	13	3	116	31	6	2	6	2
Ontonagon	28	5	307	53	119	59	27	7
Schoolcraft	18	4	173	38	8	5	2	1
Unknown	1	1	12	10	0	0	0	0
Statewide[e]	292	10	3,302	159	358	63	200	16

[a]These estimates only represent the participation, effort, or harvest of trappers that obtained a marten permit.
[b]All fishers that were removed from traps, including all incidental catches and releases.
[c]Includes only fishers that were registered (i.e., a seal was attached and the animal was returned to the trapper).
[d]95% confidence limits.
[e]Number of trappers does not add up to statewide total because trappers could trap in more than one county. Column totals for trapping effort and capture may not equal statewide totals because of rounding errors.

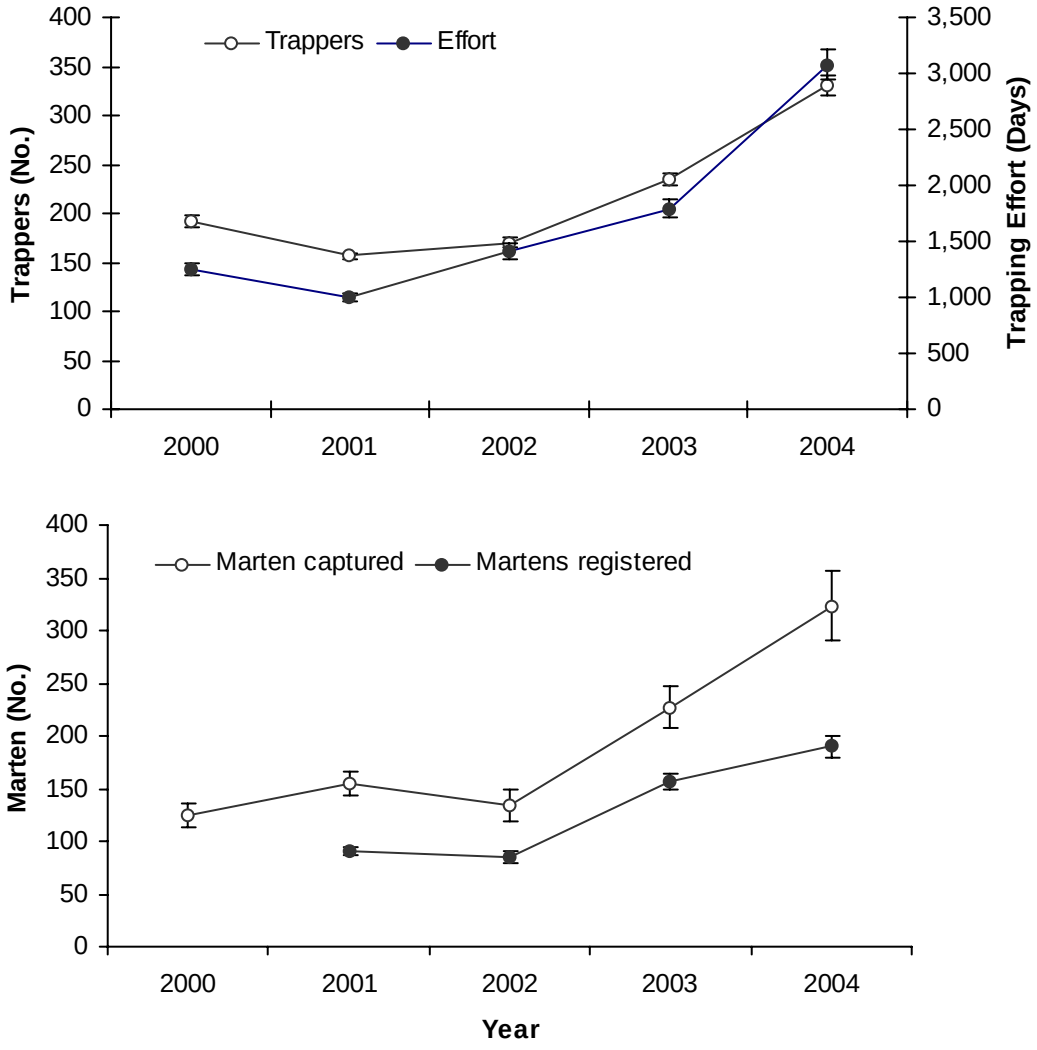

Figure 1. Estimated number of trappers, trapping effort (days), and number of marten captured and registered in Michigan, 2000-2004.

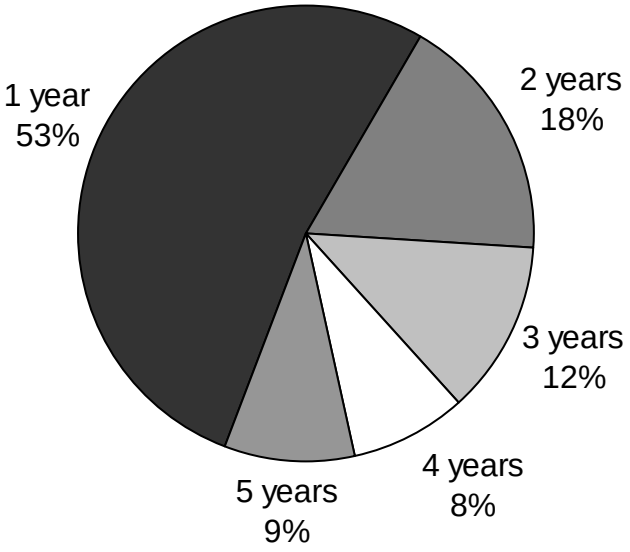

Figure 2. Among trappers that obtained a 2004 marten permit, the frequency that these trappers obtained permits during 2000-2004. Permits were obtained by 531 people in 2004.

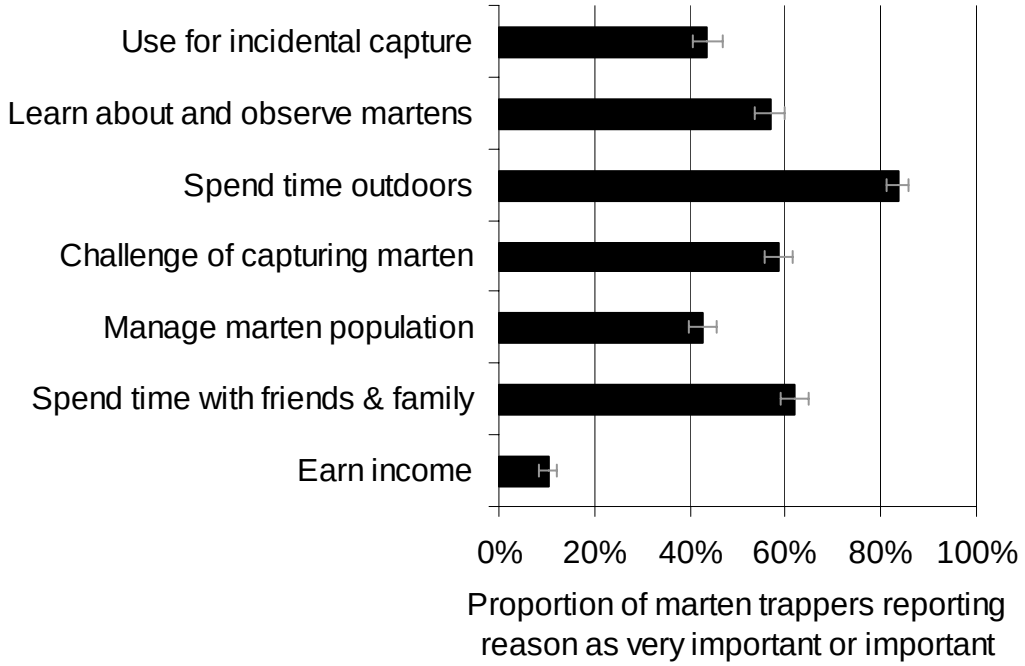

Figure 3. Reasons new trappers cited as important factors in obtaining their 2004 marten permit in Michigan (281 trappers obtained a marten permit for the first time in 2004). Error bars represent the 95% confidence interval.